

AMENDMENTS TO THE SPECIFICATION

Please replace page 2, lines 1-24 with the following paragraph rewritten in amendment format:

According to the invention described in Japanese Unexamined Patent Publication No. 2001-277842, the high pressure refrigerant passage and the low pressure refrigerant passage are integrated into one body. Therefore, refrigerant which has flowed out from the evaporator must be returned to the compressor via the condenser. Accordingly, the length of the low pressure refrigerant passage is extended by the length of the condenser. As a result, there is a high possibility that the pressure loss of refrigerant is increased and the power consumption of the compressor is increased. In general, in the air-conditioner composing a refrigerating cycle, pipe-shaped piping members are connected among the compressor, condenser, expansion valve and evaporator for circulating refrigerant. When the length of the piping members ~~is increased~~ increases, the manufacturing cost is raised. Therefore, in the case of an air-conditioner, investigations ~~[[are]]~~ have been made into the arrangement of each device so that the piping length can be made as short as possible. However, in the case of an air-conditioner mounted on a vehicle, for example, when an air-conditioner is mounted on a one-box type vehicle, the length of piping is greatly increased ~~[[so as]]~~ to lay the piping members for the rear seat evaporator.

Please replace page 6, lines 26-30 with the following paragraph rewritten in amendment format:

Accordingly, the time necessary for assembling the refrigerant pipe can be reduced and, further, the piping can be simply arranged. Therefore, the mounting property ~~[[the]]~~ for a vapour-compression type refrigerating machine on a vehicle can be enhanced.

Please replace page 24, lines 18-25 with the following paragraph rewritten in amendment format:

In Fig. 1, the compressor ~~[[1]]~~ C sucks and compresses refrigerant. In this embodiment, the compressor ~~[[1]]~~ C is assembled to an engine used for running a vehicle so as to obtain power from the engine. The radiator (condenser) ~~[[2]]~~ R is a heat exchanger arranged on the high pressure side for cooling refrigerant on high pressure when heat exchange is conducted between refrigerant of high pressure and outside air.

Please replace page 24, lines 26-31 with the following paragraph rewritten in amendment format:

In this connection, in the present embodiment, the pressure of refrigerant of high pressure is set at a value lower than the critical pressure of refrigerant. Therefore, the enthalpy of the refrigerant is lowered in the condenser ~~[[2]]~~ R while the phase of refrigerant is changed from gas phase to liquid phase.

Please replace page 24, lines 32-37 and page 25, lines 1-3 with the following paragraph rewritten in amendment format:

The decompressor [[3]] D is a decompressing means for decompressing refrigerant of high pressure. In this embodiment, the decompressor [[3]] D is a temperature type expansion valve in which a variable throttling portion for adjusting the degree of throttling according to the degree of superheat on the outlet side of the evaporator [[4]] E and a temperature detecting portion for detecting the degree of superheat of refrigerant are integrated into one body.

Please replace page 25, lines 4-16 with the following paragraph rewritten in amendment format:

In this connection, the evaporator [[4]] E is a heat exchanger arranged on the low pressure side in which liquid-phase refrigerant of low pressure is evaporated. In this embodiment, the evaporator [[4]] E sucks heat from the air, which is blown out into a passenger's compartment, and evaporates the refrigerant, so that the air, which is blown out into a passenger's compartment, can be cooled, and the thus absorbed heat is emitted outside the passenger's compartment from the condenser [[2]] R. On the contrary, the passenger's compartment may be heated in such a manner that heat is sucked from the outside air, and the thus absorbed heat is emitted into the air blown out in to the passenger's compartment.

Please replace page 25, lines 17-30 with the following paragraph rewritten in amendment format:

The compressor pipe 5 is composed in such a manner that the refrigerant pipe connected with the suction side of the compressor [[1]] C and the refrigerant pipe connected with the discharge side of the compressor [[1]] C are integrated into one body. The condenser pipe 6 is composed in such a manner that the refrigerant pipe connected with the inlet side of the condenser [[2]] R and the refrigerant pipe connected with the outlet side of the condenser [[2]] R are integrated into one body. The decompressor pipe 7 is composed in such a manner that the refrigerant pipe connected with the inlet side of the decompressor [[3]] D and the refrigerant pipe connected with the outlet side of the temperature detecting portion are integrated into one body.

Please replace page 26, lines 2-14 with the following paragraph rewritten in amendment format:

In this connection, in the compressor pipe 5, the inner cylinder side is connected with the discharge side of the compressor [[1]] C, and the outer cylinder side is connected with the suction side of the compressor [[1]] C. In the condenser pipe 6, as shown in Fig. 3, the inner cylinder side is connected with the outlet side of the condenser [[2]] R, and the outer cylinder side is connected with the inlet side of the condenser [[2]] R. In the decompressor pipe 7, as shown in Fig. 4, the inner cylinder side is connected with the inlet side of the decompressor [[3]] D, and the outer cylinder side is connected with the outlet side of the temperature detecting portion.

Please replace page 26, lines 15-26 with the following paragraph rewritten in amendment format:

When the compressor pipe 5, the condenser pipe 6 and the decompressor pipe 7 are connected with the intermediate joint 8 as shown in Fig. 5, the refrigerant pipe connected with the discharge side of the compressor [[1]] C is connected with the refrigerant pipe connected with the inlet side of the condenser [[2]] R, the refrigerant pipe connected with the outlet side of the condenser [[2]] R is connected with the refrigerant pipe connected with the inlet side of the decompressor [[3]] D, and the refrigerant pipe connected with the outlet side of the temperature detecting portion is connected with the refrigerant pipe connected with the suction side of the compressor [[1]] C.

Please replace page 26, lines 35-37 and page 27, lines 1-12 with the following paragraph rewritten in amendment format:

In this embodiment, the refrigerant pipe connected with the suction side of the compressor [[1]] C and the refrigerant pipe connected with the discharge side of the compressor [[1]] C are integrated into one body. Further, the refrigerant pipe connected with the inlet side of the condenser [[2]] R and the refrigerant pipe connected with the outlet side of the condenser [[2]] R are integrated into one body. Furthermore, the refrigerant pipe connected with the inlet side of the decompressor [[3]] D and the refrigerant pipe connected with the outlet side of the temperature detecting portion are integrated into one body. Therefore, the number of pipes and the number of joints to

connect the pipes can be decreased compared with the structure described in Japanese Patent Publication No. 2595578.

Please replace page 27, lines 18-29 with the following paragraph rewritten in amendment format:

Since the compressor pipe 5, the condenser pipe 6 and the decompressor pipe 7 are connected via the intermediate joint 8 in the present embodiment, refrigerant flowing out from the evaporator [[4]] E returns to the compressor [[1]] C without flowing in the condenser [[2]] R, which is different from the conventional refrigerating machine. Accordingly, the length of the low pressure passage can be reduced compared with that of the conventional refrigerating machine. Therefore, it is possible to reduce the pressure loss of refrigerant. As a result, an increase in the power consumption of the compressor [[1]] C can be prevented.

Please replace page 27, lines 30-37 and page 28, lines 1-8 with the following paragraph rewritten in amendment format:

In this connection, since two types of pipes are integrated with each other into one body in the present embodiment, there is a possibility that heat is exchanged between the refrigerant flowing in these two types of pipes. In this case, even when heat is exchanged between refrigerant of low pressure and refrigerant of high pressure flowing in the compressor pipe 5 and the decompressor pipe 7, the operation is the same as that of a well known inner heat exchanger. Therefore, no problems are caused. However, when heat is exchanged in the condenser pipe 6 between the

refrigerant flowing out from the condenser R and refrigerant flowing into the condenser R, there is a possibility that the enthalpy of the refrigerant flowing into the evaporator E is increased and the heat absorbing capacity of the evaporator E is deteriorated.

Please replace page 28, lines 9-17 with the following paragraph rewritten in amendment format:

In the present embodiment, in order to solve the above problems, the length of the condenser pipe 6 from the intermediate joint 8 to the condenser R is reduced to less than the length of the decompressor pipe 7 from the intermediate joint 8 to the decompressor D, so that a quantity of heat exchanged between the refrigerant flowing out from the condenser R and the refrigerant flowing into the condenser R in the condenser pipe 6 can be suppressed.

Please replace page 28, lines 18-22 with the following paragraph rewritten in amendment format:

In another embodiment of the present invention, the present invention is applied to an air-conditioner having two evaporators, that is, the evaporator E1 used for the front seat and the evaporator E2 used for the rear seat as shown in Fig. 6.

Please replace page 28, lines 23-37 and page 29, lines 1-8 with the following paragraph rewritten in amendment format:

In another embodiment of the present invention, the first decompressor [[3a]] D1 for the evaporator [[4a]] E1 used for the front seat and the second decompressor [[3b]] D2 for the evaporator [[4b]] E2 used for the rear seat are provided. Further, as shown in Fig. 7, the second intermediate joint 9 is provided which is connected as follows. The refrigerant pipe connected with the outlet side of the condenser [[2]] R1 is connected with the refrigerant pipe connected with the inlet side of the first decompressing means [[3a]] D1 by the second intermediate joint 9; the refrigerant pipe connected with the outlet side of the condenser [[2]] R1 is connected with the refrigerant pipe connected with the inlet side of the second decompressing means [[3b]] D2 by the second intermediate joint 9; the refrigerant pipe connected with the outlet side of the temperature detecting portion of the first decompressing means [[3a]] D1 is connected with the refrigerant pipe connected with the suction side of the compressor [[1]] C1 by the second intermediate joint 9; and the refrigerant pipe connected with the outlet side of the temperature detecting portion of the second decompressor [[3b]] D2 is connected with the refrigerant pipe connected with the suction side of the compressor [[1]] C1 by the second intermediate joint 9.

Please replace page 29, lines 33-37 and page 30, lines 1-5 with the following paragraph rewritten in amendment format:

In the above embodiment, the decompressor [[3]] D is composed of a temperature-type expansion valve in which the variable throttling portion for adjusting

the degree of throttling according to the degree of superheat of refrigerant on the outlet side of the evaporator [[4]] E and the temperature detecting portion for detecting the degree of superheat of refrigerant are integrated with each other into one body. However, it should be noted that the present invention is not limited to the above specific embodiment.

Please replace page 33, lines 27-33 with the following paragraph rewritten in amendment format:

Due to the foregoing, the inner pipe 3 and the outer pipe 2 can be ~~differently~~ separately joined to the joint member 10 and supported by the joint member 10 at both end portions. Therefore, it is possible to avoid a step in which the inner pipe 3 and the outer pipe 2 are joined to each other. Accordingly, the manufacturing cost can be reduced.

Please replace page 61, lines 21-37 and page 62, lines 1-2 with the following paragraph rewritten in amendment format:

As shown in Fig. 33, in the outer pipe 182 of the second double pipe 181, instead of the ring member 165 shown in Fig. 32, the expanded portion 182a may be formed by bead machining and fastened by the fastening member 175, the cross section of which is substantially a W-shape, which is composed of two divided [[part]] parts joined by a hinge [[means]]. In this connection, between the inner pipe 173 of the first double pipe 171 and the inner pipe 183 of the second double pipe 181, the inner pipe 173 of the first double pipe 171 and the inner pipe 183 of the second double pipe 181 cannot protrude

from the respective outer pipes 172, 182 so as to form the female side joint portion 172a, which is formed being expanded in the outer pipe 172 of the first double pipe 171, and to form the expanded portion 182a by conducting bead machining on the outer pipe 182 of the second double pipe 181. Therefore, the bypass inner pipe 176 is inserted so that the respective inner pipes 173, 183 can be connected to each other through the bypass inner pipe 176.